

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please **AMEND** claims 1, 3-4, 9 and 12 in accordance with the following:

1. (CURRENTLY AMENDED) An injection mechanism of an injection molding machine using a linear motor as a driving source for driving an injection screw shaft in the axial direction, wherein the linear motor comprises:

a movable section linked to the injection screw shaft and extending in the axial direction;
an outer frame; and

a fixed section detachably attached to the outer frame and extending in the axial direction while facing the movable section; and

an adjuster between the outer frame and the fixed section to adjust a gap between the fixed section and the movable section,

wherein a plurality of the linear motors each comprised of the movable section, the outer frame and the fixed section are arranged to surround the screw shaft.

2. (ORIGINAL) An injection mechanism of an injection molding machine according to claim 1, wherein

the movable section of each of the linear motors comprises a polygonal prism having a plurality of pairs of plane parallel to each other, and electrical elements of each of the linear motors are provided on the two planes parallel to each other, respectively; and

the fixed section of each of the linear motors is fixedly attached to the outer frame so that electrical elements of the fixed section face the electrical elements of the movable section of each of the linear motors, respectively.

3. (CURRENTLY AMENDED) ~~An injection mechanism of an injection molding machine according to claim 1~~ An injection mechanism of an injection molding machine using a linear motor as a driving source for driving an injection screw shaft in the axial direction, wherein the linear motor comprises:

a movable section linked to the injection screw shaft and extending in the axial direction;

an outer frame; and

a fixed section detachably attached to the outer frame and extending in the axial direction while facing the movable section,

wherein a plurality of the linear motors each comprised of the movable section, the outer frame and the fixed section are arranged to surround the screw shaft,

wherein the fixed section of each of the linear motors is detachably attached to the outer frame so that electrical elements of the fixed section face electrical elements of the movable section of each of the linear motors, respectively.

4. (CURRENTLY AMENDED) ~~An injection mechanism of an injection molding machine according to claim 1~~

An injection mechanism of an injection molding machine using a linear motor as a driving source for driving an injection screw shaft in the axial direction, wherein the linear motor comprises:

a movable section linked to the injection screw shaft and extending in the axial direction;

an outer frame; and

a fixed section detachably attached to the outer frame and extending in the axial direction while facing the movable section,

wherein a plurality of the linear motors each comprised of the movable section, the outer frame and the fixed section are arranged to surround the screw shaft,

wherein a hole section is provided in the outer frame, the fixed section of each of the

linear motors is comprised of a lid closing the hole section, and electrical elements of the fixed section of each of the linear motors are fixedly attached to an inside of the lid.

5. (ORIGINAL) An injection mechanism of an injection molding machine according to claim 1, wherein one end of the screw shaft is attached to a moving plate constituting the injection molding machine such that it can rotate but cannot move linearly, and the movable section of each of the linear motors is fixed to the moving plate.

6. (ORIGINAL) An injection mechanism of an injection molding machine according to claim 5, wherein the movable section of each of the linear motors is fixed to the moving plate through a load cell.

7. (PREVIOUSLY PRESENTED) An injection mechanism of an injection molding machine according to claim 2, wherein the movable section of each of the linear motors is comprised of a prism having a rectangular cross section, and electrical elements of the linear motors are provided on four planes of the prism, respectively.

8. (ORIGINAL) An injection mechanism of an injection molding machine according to claim 1, wherein a cylinder for containing inside the injection screw shaft is attached to a front plate constituting the injection molding machine, the outer frame constituting the linear motor is fixedly attached to the front plate.

9. (CURRENTLY AMENDED) An injection mechanism of an injecting molding machine according to claim 1, ~~further comprising gap adjustment means for adjusting a gap between the outer frame and the fixed section, wherein~~ the outer frame and the fixed section

~~constituting~~ constitute one linear motion.

10. (ORIGINAL) An injection mechanism of an injection molding machine according to claim 1, wherein a linear guide for linearly moving the movable section is formed on one constituent member of the outer frame.

11. (ORIGINAL) An injection mechanism of an injection molding machine according to claim 1, wherein a measuring shaft is linked to one end of the screw shaft, and the measuring shaft passes through a penetrating hole provided in a center of the movable section.

12. (CURRENTLY AMENDED) An apparatus, comprising:
an injection unit extending in an first direction; and
a motor to linearly drive the injection unit in the first direction, comprising:
a frame,
a first portion attached to the injection unit to move within the frame in the first direction, and
a second portion detachably attached to the frame and facing the first portion, and
an adjuster between the frame and the second portion to adjust a gap between the frame
and the second portion.

13. (PREVIOUSLY PRESENTED) The apparatus according to claim 12, wherein the frame defines a hole therein, and the second portion comprises a lid to close the hole.

14. (PREVIOUSLY PRESENTED) The apparatus according to claim 12, wherein the hole is disposed relative to the first portion in a second direction perpendicular to the first

direction.

15. (PREVIOUSLY PRESENTED) The apparatus according to claim 14, wherein the second portion is detachable from the frame to provide access to the first portion through the hole.